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AMSAT NEWS SERVICE
ANS-180

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor(a)amsat.org

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see:
http://www.amsat.org/mailman/listinfo/ans

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ANS-180 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 180.01
>From AMSAT HQ KENSINGTON, MD.
DATE 2020 June 28
To All RADIO AMATEURS
BID: $ANS-180.01

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If you're a current member and have not yet logged on to the portal, please do so to ensure that your information is accurate in the database and check out the online resources we have made available to all members, including Proceedings, all issues of The AMSAT Journal dating back to 2014, and a printable frequency chart listing currently available amateur satellites.

If you're not a current member, now is a great time to sign up. Visit https://launch.amsat.org/ today!

(ANS thanks Paul Stoetzer, N8HM, AMSAT Executive Vice President for the above information)

Ham Talk Live Episode on Satellite Etiquette

Popular internet podcast "Ham Talk Live!" this past week featured an episode on Satellite Etiquette. The podcast, which uses the format of a radio call-in show, streams live on Thursdays at 9 p.m. Eastern Time (0100z in the current Daylight Time regimine), can be replayed on You-Tube at https://www.youtube.com/channel/UCF1FnCczwUikw1aKsTqMR9g as Episode 218.

Podcast host, Neil Rapp, WB9VPG, conducted interviews with Kevin Zari, KK4YEL and Robert Bankston, KE4AL, AMSAT Vice President - User Services about basic satellite operating etiquette as well as how to conduct satellite operations special event stations, such as roamers and during events such as Field Day.

[ANS thanks @HamTalkLive on Twitter for the above information]

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• AX.25 4.8kbps GMSK Telemetry: 145.890 MHz
• U/V Linear Transponder Downlink: 145.925 MHz, 20 kHz bandwidth
• U/V Linear Transponder Uplink: 435.280 MHz, Inverted

Operator reports indicate that the transponder is active only for brief intervals of about 2 seconds, spaced approximately seconds apart. With patience, and quick transmissions, QSOs have been completed.

CAS-6 (NORAD Cat ID 44881) has been added to the AMSAT distributions of Two Line Element (TLE) sets beginning from June 25, 2020. Watch for possible future changes to the satellite name in future TLEs.

[ANS thanks Drew Glasbrenner, KO4MA, AMSAT VP Operations & OSCAR Number Administrator; Ray Hoad, WA5QGD, AMSAT Orbital Elements Manager; and Alan Kung, BA1DU, for the above information]

ASEE Presentation on CubeSatSim

At this week's American Society of Engineering Education (ASEE) virtual national conference, AMSAT's VP of Educational Relations, Alan Johnston, Ph.D., KU2Y, presented a paper on the use of the AMSAT CubeSatSim in the classroom. His paper "The CubeSat Mini Project: Experiences with an Introductory Freshman Electrical and Computer Engineering Course" described the use of the CubeSatSim in the spring of 2019 at Villanova University.

In addition to building CubeSatSims, the students also built tape measure Yagi-Uda antennas, tracked amateur radio satellites, and listened to morse code telemetry using SDRs. The CubeSatSim is a low cost satellite emulator that runs on solar panels and batteries, transmits UHF radio telemetry, has a 3D printed frame, and can be extended by additional sensors and modules. It can be built for about $200. Details about the design and use of the simulator are in a series of articles in the AMSAT Journal. More information on the AMSAT CubeSatSim is available at https://cubesatsim.org or by contacting Alan at ku2y at amsat dot org or on Twitter @alanbjohnston.

[ANS thanks Alan Johnston, KU2Y, AMSAT VP Educational Relations for the above information]

AMSAT Announces Candidates for 2020 Board of Directors Election

The nomination period for this year's AMSAT Board of Directors election ended June 15. The following candidates have been found to have their membership in good standing and their nomination credentials in order:

Howard DeFelice, AB2S
Mark Hammond, N8MH
Jeff Johns, WE4B
Robert McGwier, N4HY
Bruce Paige, KK5DO
Paul Stoetzer, N8HM

This year, AMSAT will be electing three voting members of the Board of Directors. These will go to the three candidates receiving the highest number of votes. In addition, there will be two alternates chosen, based on the next highest number of votes received.

Further details regarding the mechanics of the election will appear in

ANS in the near future. Ballots will be mailed to the AMSAT membership by July 15th based on a membership list that will be generated as early as July 1. Members are encouraged to use the AMSAT Membership Portal at launch.amsat.org to verify that their membership is in good standing and their mailing address is correct.

[ANS thanks Brennan Price, N4QX, AMSAT Secretary, for the above information]

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Amateurs and others around the world may listen in on contacts between amateurs operating in schools and allowing students to interact with astronauts and cosmonauts aboard the International Space Station. The downlink frequency on which to listen is 145.800 MHz worldwide.

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors for the above information]

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Hamfests, Conventions, Maker Faires, and Other Events

Want to see AMSAT in action or learn more about amateur radio in space? AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

Due to COVID-19, many hamfest and events around the United States have been cancelled or postponed. While we make every effort to ensure the information contained below is correct, there may be some that we missed. We wish all of you safekeeping and hope to be at a hamfest near you soon.

Current schedule:
* Shelby NC Hamfest (Contact N4HF for info or if you want to help.) Phil Jenkins, N4HF, is planning to present a forum – and set-up/man an info table – at the Shelby NC Hamfest Friday/Saturday Sept 4 & 5. (the 'fest runs Sept 4-6, but he'll probably only be there Friday and Saturday). Demos possible if additional volunteers step up.

A copy of the AMSAT hamfest brochure is available for download from: https://bit.ly/2ygVFmV This color brochure is designed to be printed double-sided and folded into a tri-fold handout.

To include your upcoming AMSAT presentation and/or demonstration, please send an email to ambassadors (at) amsat (dot) org.

[ANS thanks Robert Bankston, KE4AL, AMSAT VP-User Services for the above information]

Satellite Shorts From All Over

+ Rohit Bokade, VU3OIR, has started a petition requesting a change to the Amateur Radio license in India to permit all grades of license to use the amateur radio satellites. In India, holders of the Restricted grade of license (VU3 prefix) are not permitted to use amateur radio satellites or communicate with the International Space Station. (ANS thanks AMSAT-UK for the above information)

+ NASA's Perseverance rover is getting ready to launch to Mars in July, and it'll carry some very special messages with it. We already knew about the 11 million names and the statement "explore as one" written in Morse code. NASA revealed last week it'll also take a tribute to health care workers all the way to the red planet. The Perseverance team installed a small aluminum plate showing Earth on top of a serpent-wrapped rod, a nod to the ancient Rod of Asclepius symbol for medicine. NASA said the plaque commemorates the impact of the COVID-19 pandemic and pays tribute to the perseverance of health care workers around the world. (ANS thanks cnet.com for the above information)

+ NASA has agreed to allow its astronauts to fly on reused Crew Dragon spaceships and Falcon 9 boosters beginning as soon as SpaceX's third launch of a crew to the International Space Station, a mission expected to launch next year. The space agency has modified its contract with SpaceX to permit reuse of spacecraft and rocket hardware. NASA had not previously approved the use of previously-flown spacecraft and rockets on missions carrying the agency's astronauts into orbit. NASA said the contract modification allows for the extension of the Crew Dragon's Demo-2 test flight – which launched May 30 with astronauts Doug Hurley and Bob Behnken, KE5GGX – from two weeks to up to 119 days. (ANS thanks SpaceflightNOW for the above information)

+ NASA announced this week that it will rename its Washington headquarters after its first black female engineer, Mary Jackson, whose story was told in the hit film "Hidden Figures." Jackson was a research mathematician who was later promoted to become the agency's first black female engineer. The move by NASA comes as weeks of protests in the United States have sparked a national reckoning about systemic racism and racial inequality. (ANS thanks Space Daily for the above information)

+ Congratulations to Drew Blasbrenner, KO4MA, who has been awarded the first AMSAT issued GridMaster Award (#11)! The GridMaster award is available to all amateurs worldwide who submit proof with confirmation of contacts with each of the 488 maidenhead grids located within the contiguous United States of America. Contacts must be confirmed in writing, preferably in the form of QSL cards or via Logbook of the World (LoTW). This award was first introduced by Star Comm Group in 2014. AMSAT thanks Damon Runion, WA4HFN, and Rick Tillman, WA4NVM, for not only sponsoring this award since its inception, but, also, entrusting AMSAT with the honor of carrying on this important award for the benefit of the entire AMSAT community. (ANS thanks Bruce Paige, KK5DO, AMSAT Director, Contests & Awards, for the above information)

+ The San Diego Microwave Group will hold a Zoom meeting this Monday, June 29 at 7 p.m. U.S. Pacific Time (0200 UTC on June 30) with a presentation by Michelle Thompson, W5NYV, concerning challenges of placing an amateur microwave payload in space. Microwave on the ISS was raised as a possibility this past week from the ARISS/AREx hardware summit meetings. The San Diego Microwave Group meeting is a regular technical roundtable on amateur microwave activities, questions, operations, and experiments. Join Zoom Meeting ID: 819 2711 2936 using Password: 487697. (ANS thanks AMSAT Board Member Michelle Thompson, W5NYV, for the above information).

+ Congrats to Joe Werth, KE9AJ, and Burt Demarcq, FG8OJ, for setting a new distance record on XW-2B on June 20. This was also the longest QSO recorded on any of the XW-2 series of satellites. FG8OJ located at FK96ig17, to KE9AJ at DM79IQ47 is 4,978 km. (ANS thanks Paul Stoetzer, AMSAT Executive Vice-President, for the above information)

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73 and Remember to help keep amateur radio in space,
This week's ANS Editor, Mark D. Johns, K0JM

k0jm at amsat dot org